UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,587	09/01/2000	Kar-Wing Edward Lor	P108339-09045	7189

32294	7590	09/02/2005

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LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/654,587	LOR ET AL.
	Examiner	Art Unit	
	Dmitry Levitan	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-9 and 11-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8,9,11-20,27-29 and 31-33* is/are rejected.

7)☒ Claim(s) *7, 21-26, 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Amendment, filed 02/16/05, has been entered. Claims 7-9 and 11-33 remain pending.

Claim Objections

1.   Claims 7-9, 11-19 and 31-33 are objected to because of the following informalities:

claims 11, 15, 31 and 32 limitation "associating a priority with the subsequent packets to avoid

network congestion" is unclear, because it is not understood what priority is associated with the

packets: ports priority or the packets priority. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 8, 9, 11-20, 27-29 and 31-33 (as best understood) are rejected under 35 U.S.C. 103(a) as

being unpatentable over Baum (US 6,400,707) in view of Curry (US 6,233,234) and Klein

(US6,085,328).

2.   Regarding claims 11, 15-17 and 20, Baum substantially teaches the limitations of the

claims:

A method for switching VOIP packets (phone call from computer 326 through IP network 310

on Fig. 3 and 5:24-31), comprising the steps of

        Receiving a first packet in a network switch (firewall 338 including switch 342 on Fig. 3

and 5:39-51),

Determining if the first packet is a VOIP packet (authenticating a request at the control

center 330 on Fig. 3 and 6:36-62),

Determining a dynamically negotiated VOIP port for VOIP session from at least one of

the first packet and a second packet received in the switch, if the first packet is the VOIP packet

(dynamically setting security rules to a port 5:61-67 and confirming the port authorization by the

control processor 344 on Fig. 3 and 7:30-33), and

Classifying all subsequent VOIP packets corresponding to the VOIP port in accordance

with the predetermined parameters (monitoring every packet for conformance to the set of

security specifications 7:41-55, classifying the packets as belonging to this single conversation),

Wherein the step of classifying all subsequent VOIP packets comprises

Storing the VOIP port (inherently part of the system, because Baum teaches setting the

security rules including the negotiated port for the duration of the conversation, what means

storing the rules, including the port),

Filtering all packets coming through the switch, associated with the VOIP port (filtering

the packets 7:41-52),

Classifying filtered packets in accordance with predefined filter actions (classifying the

packets as belonging to this single conversation 7:41-55), and

Wherein the step of storing the VOIP port comprises generating a filter corresponding to

the VOIP port (firewall filter contains the negotiated port, so storing the port is essential part of

the filter parameters generation) and fast filtering processor (firewall).

Baum does not teach assigning priority to the packets and storing the generated filter in a filter

table.

Klein teaches utilizing VLAN and assigning priority to the packets (designating bytes of the

packet header for assigning priority 9:59-60)

Curry teaches storing the generated filter in a filter table (filter tables on 5:64-67 and 6:1-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add VLAN and assigning priority to the packets of Klein and storing the generated filter in a

filter table associated with a fast filtering processor of Curry to the system of Baum to increase

the security of the system by utilizing virtual LAN with assigning priority to the packets to

prioritize customers needs and reduce the system delay by improving it search capabilities by

utilizing the stored filter tables.

In addition, regarding claims 15-17, Baum teaches trapping VOIP call setup message

(valid Q.931 message 6:51-63), fast filtering processor (firewall 340 on Fig. 3) and capabilities

exchange protocol message (protocol on 7:16-25 including bearer capability 7:20).

3.   Regarding claim 8, Baum teaches extracting the negotiated VOIP port from the first

packet and sending the second packet to a CPU for decoding and extraction of the VOIP port

(the port is part of the security set, extracted from all packets, as all the packets are monitored at

firewall/CPU for the security conformance 7:41-52).

4.   Regarding claims 13 and 14, Baum teaches taking a filtering action/dropping the packet

(inherently part of the system, because Baum teaches use of firewall and firewalls drop

unauthorized packets).

5.   Regarding claim 27, memory management, memory and data port interfaces, messaging

exchange between these elements and a communication channel are inherently part of the filter

table storage, because all these elements are essential for any memory storage unit.

6.   Regarding claim 29, Baum teaches fast filtering processor programmable by inputs from

a CPU through a CPU interface (firewall 340 is programmable during the call setup by a

customer PC, inherently containing a CPU, as disclosed on 6:35-62).

7.   Regarding claim 9, Baum, Klein and Carry teach all limitations of parent claim 11.

Baum, Klein and Carry do not teach real time (RTP) port.

        Official notice is taken that real time (RTP) port is well known in the art for use with real

time traffic like voice or video.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add real time (RTP) port to the system of Baum, Klein and Carry to improve the system

operation with voice traffic to make the conversation coherent.

8.   Regarding claim 28, Baum, Klein and Carry teach all the limitations of parent claim 27.

Baum, Klein and Carry do not teach memory interface comprising an internal memory and

external memory interface.

Official notice is taken that memory interface comprising an internal memory and external

memory interface is well known in the art, as well known Personal computers comprise an

internal memory (RAM) with an external memory (hard disk memory) including an interface

between them.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add memory interface comprising an internal memory and external memory interface to the

system of Baum, Klein and Carry to improve the system reliability, in case one of the memories

will fail.

9.   Regarding claims 18 and 19 Baum, Klein and Carry teach all limitations of parent claim

15.

Baum, Klein and Carry do not teach changing priority of the packet to reduce network

transmission delay for the packet.

Official notice is taken that changing priority of the packet to reduce network transmission delay

for the packet is well known in the art, as some customer's traffic with lower priority can be

dropped in the network congestion environment.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add changing priority of the packet to reduce network transmission delay for the packet to the

system of Baum, Klein and Carry to improve the system operation with voice traffic giving

priority to certain packets.

10.   Regarding claims 12 and 31-33, Baum substantially teaches the limitations of parent

claims 11, 31 and 32:

A method for switching VOIP packets (phone call from computer 326 through IP network 310

on Fig. 3 and 5:24-31), comprising the steps of

        Receiving a first packet in a network switch (firewall 338 including switch 342 on Fig. 3

and 5:39-51),

        Determining if the first packet is a VOIP packet (authenticating a request at the control

center 330 on Fig. 3 and 6:36-62),

        Determining a dynamically negotiated VOIP port for VOIP session from at least one of

the first packet and a second packet received in the switch, if the first packet is the VOIP packet

(dynamically setting security rules to a port 5:61-67 and confirming the port authorization by the control processor 344 on Fig. 3 and 7:30-33), and

Classifying all subsequent VOIP packets corresponding to the VOIP port in accordance with the predetermined parameters (monitoring every packet for conformance to the set of security specifications 7:41-55, classifying the packets as belonging to this single conversation),

Wherein the step of classifying all subsequent VOIP packets comprises

Storing the VOIP port (inherently part of the system, because Baum teaches setting the security rules including the negotiated port for the duration of the conversation, what means storing the rules, including the port),

Filtering all packets coming through the switch, associated with the VOIP port (filtering the packets 7:41-52),

Classifying filtered packets in accordance with predefined filter actions (classifying the packets as belonging to this single conversation 7:41-55), and

Wherein the step of storing the VOIP port comprises generating a filter corresponding to the VOIP port (firewall filter contains the negotiated port, so storing the port is essential part of the filter parameters generation) and fast filtering processor (firewall).

Baum does not teach assigning priority to the packets, storing the generated filter in a filter table and using a mask to compare the information in the packet with a filter table.

Klein teaches utilizing VLAN and assigning priority to the packets (designating bytes of the packet header for assigning priority 9:59-60) and using a mask to compare the information in the packet with a filter table (applying filter mask to a packet header, extracting unmasked portion and matching it to predefined values Fig. 4 and 5:66-67, 6:1-28).

Curry teaches storing the generated filter in a filter table (filter tables on 5:64-67 and 6:1-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add VLAN and assigning priority to the packets and using mask of Klein and storing the generated filter in a filter table associated with a fast filtering processor of Curry to the system of Baum to increase the security of the system by utilizing virtual LAN with assigning priority to the packets to prioritize customers needs and reduce the system delay by improving it search capabilities by utilizing the stored filter tables, incorporating well known technique in the system.

Allowable Subject Matter

11.   Claims 7, 21-26 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12.   Applicant's arguments with respect to claims 11, 15, 31 and 32 have been considered but are moot in view of the new ground(s) of rejection.

13.   Applicant has not challenge the Official Notices taken by Examiner in the last Office Action. Therefore, the presentation of references to substantiate the Official Notices is not deemed necessary. The examiner's taking of Official Notices has been maintained.

14.   On page 18 of the Response, Applicant argues that monitoring packets by firewall of

Baum is not the same as classifying the packets.

Examiner respectfully disagrees.

The firewall of Baum monitors and classifies all the incoming packets in two classes: first is the

class containing all the packets that belong to a single conversation and second class containing

the rest of the packets.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The

examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dmitry Levitan
Patent Examiner.
09/01/05.